# Computer Engineering, PhD (Shared with UAB)

The ECE Department offers, jointly with UAB, a PhD program in Computer Engineering.

The following table is an outline of the program of study requirements. Students should consult their dissertation advisor and supervisory committee to develop their program of study.

## Program of Study

**CPE Major**
Select a major consisting of a minimum of 18 semester hours of approved related coursework in Computer Engineering  

**Math Minor**
Select one of the following options:

<table>
<thead>
<tr>
<th>Option 1</th>
<th>Option 2</th>
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<tbody>
<tr>
<td>Select 12 semester hours in approved graduate level mathematics courses</td>
<td>Select 6 semester hours in approved graduate level mathematics courses and select one of the following approved two-course sequences</td>
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- **MA 585 & CPE 619**  
  PROBABILITY and MODELING & ANAL COMPU/COMMUN S
- **MA 540 & MA 640**  
  COMBINATORIAL ENUMERATION and GRAPH THEORY
- **MA 640 & MA 740**  
  GRAPH THEORY and COMBINATORIAL ALGORITHMS
- **EE 629 & EE 630**  
  ANAL & COMP METH IN ELEC ENG I and ANAL & COMP METHODS ELEC EG II
- **MA 542 & CPE 645**  
  ALGEBRA and COMPUTER NETWORK SECURITY

**Engineering or Computer Science Area of Specialization Minor**
Select a minor consisting of 12 semester hours of approved coursework in engineering or computer science  

**Supporting Coursework and Dissertation Hours**
Select 6 semester hours of approved ECE graduate coursework  
Complete a dissertation

**Total Semester Hours**  
66